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ABSTRACT

This is an evaluation of a Title VII Bilingual/Bicultural Program that was conducted at a New York City high school in 1979-1980. The program served Spanish speaking students. A demographic analysis of the school's neighborhood and a discussion of participating students' characteristics are provided. The program description outlines the project's philosophy, organization, and structure. Instructional components of the program that are reviewed include: (1) programming and mainstreaming; (2) bilingual classes; and (3) funding for the instructional component. Non-instructional components discussed include: (1) funding sources; (2) curriculum development; (3) supportive services; (4) staff development; (5) parental and community involvement; and (6) affective domain. Tables show students' results on the Criterion Referenced English Syntax Test and other tests measuring mathematics performance, science performance, social studies performance, content area performance, and native language arts performance for both remedial and non-remedial students. Attendance figures are also presented. Conclusions and recommendations are offered. (APM)

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FINAL EVALUATION REPORT

BUSHWICK HIGH SCHOOL

BILINGUAL/BICULTURAL PROGRAM

ESEA TITLE VII

PROJECT 5001-42-07617

1979-1980

NEW YORK CITY PUBLIC SCHOOLS

OFFICE OF EDUCATIONAL EVALUATION

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FINAL EVALUATION REPORT
BUSHWICK HIGH SCHOOL

BILINGUAL/BICULTURAL PROGRAM

ESEA TITLE VII

1979-1980

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BUSHWICK HIGH SCHOOL
BILINGUAL/BICULTURAL PROGRAM

Location:	400 Irving Avenue, Brooklyn, New York
Target Language:	Spanish
Year of Operation:	1979-1980
Number of Participants:	250 Students of Hispanic Origin
Principal:	Dr. Leonard Gelber
Program Coordinator:	Harold J. Clines

I. DEMOGRAPHIC CONTEXT

Bushwick High School is located in the Bushwick section of Brooklyn, an area which is very depressed economically and socially. High crime rates, arson, drugs, and abandoned buildings are all problems here. Housing is mostly run-down and overcrowded. The school serves a multi-racial and multi-ethnic working-class population, with students from the Williamsburgh, Bedford-Stuyvesant, and parts of the East New York sections of the borough as well as Bushwick itself.

The attendance area of the school has a population which is approximately 63% Hispanic and 34% Black; almost all households are in the low socio-economic category. Since the area as a whole is Spanish-dominant, many Hispanic students have little need to use English within the community.

The high mobility of the population is reflected in the fact that Bushwick High School replaces 1,000 students per year with new students. This is over 33% of the total school population of 2,700. Students disappear, moving back to their native country or on to better neighborhoods. This instability is one of the special problems of the community which disproportionately affects the Bilingual/Bilcultural Program. According to the Coordinator and his staff, these problems are intensified by the existence of many unregistered aliens among Program students.

II. STUDENT CHARACTERISTICS

In 1976-77 the Hispanic population of the school was 63.0%, of which 11.6% were designated as "other than Puerto Rican". The balance of the students were 33.6% Black, 0.3% Oriental and 3.3% Other. For the same year, the social and economic stability of the population was described by the following statistics: 61.1% of the students received free lunch, and the number of students in the district receiving Norm Aid to Dependent Children was 3,642.

This year, over 80% of students received free lunch and it is likely that an even higher percentage of Program students were eligible. Another significant change has been the decrease in the proportion of Puerto Ricans within the Hispanic population to approximately 40%. Another 40% of this population is estimated to be Dominican, with the remainder from Ecuador, Colombia, San Salvador, Honduras, and other countries. These proportions are the same in the target population of the Bilingual/Bicultural Program.

The "Friendship Book" of student biographies reflects this diversity in charming detail.

The Bushwick High School Bilingual/Bicultural Program provided bilingual/bicultural educational services to approximately 280 students of Hispanic backgrounds who are not English language dominant. Almost all students are foreign-born, with about 70% of these newly arrived. The remaining 30% come to Bushwick from the Intermediate Schools in the district. Because some students received virtually no schooling in their native country, while others attended excellent schools, the range of literacy in the native language is great: from illiterate to very proficient. In English, the range of proficiency is also great; students are placed on all levels from elementary to advanced-transitional ESL.

Determination of eligibility for participation in the Bilingual/ Bicultural Program is based on performance below the 21st percentile on the Language Assessment Battery (LAB) together with a higher score on the Spanish Language Assessment Battery (SLAB). A school-modified version of the Criterion Referenced English Syntax Test (CREST) is also given, and a profile sheet detailing such information as years of English studied, where studied, etc., is used in placement. Although time does not permit a personal interview with each student at the beginning of the school year, the Testing Coordinator does see every student in the course of the year. At this interview oral abilities are assessed.

III. PROGRAM DESCRIPTION-OVERVIEW

The Bushwick High School Bilingual/Bicultural Program offers instructional and supportive services to 9th, 10th and 11th grade non-English language dominant students. Some emphasis is placed on the 9th and 10th grades, since it is here that the greatest need is felt to exist. There are also a proportionally greater number of students in these grades. The overall philosophy, as articulated by the Program Coordinator, is "to give students all that they need to fulfill high school diploma requirements and to be successfully mainstreamed as quickly as possible, while preserving and enhancing their cultural heritage and personal strengths." This philosophy appears to be fully shared by other program staff, and by the school administration.

The program, which was originally funded for five years, is now in its fifth year. The basic thrust has not altered, but the program has proven flexible enough to meet additional needs as they have come up, for example the new basic competency requirements. And, as a solid core program has been structured, it has been possible to place more emphasis on the career component of the program.

Integration with the school as a whole seems excellent. The Assistant Principals supervise the bilingual teachers administratively and pedagogically, and also work very closely with the Program Coordinator. Bilingual materials are kept within the appropriate subject departments. Mainstream teachers support the program, and are eager to have its students in their classes. The program is seen as a strong asset to the school.

IV. INSTRUCTIONAL COMPONENT

Participants in the Program receive instruction in Spanish Language and Culture. There are special courses for those who are non-readers or are semi-literate in Spanish, but, because of the sensitivity of the Program Staff to the self-concept needs of such students, this year Spanish remedial courses are no longer given as part of a separate Native Language Arts program. Instead, they constitute the lower levels (1-4) of the regular Spanish Language for Native Speakers Curriculum.

Program participants also receive bilingual instruction in science, social studies and math; study English as a Second Language (ESL); and, are required to take an additional mainstream English class. As their proficiency allows, students may also participate in other mainstream classes such as Industrial Arts, and Business Education. In their art, music, and physical education classes, all Program students are integrated with mainstream students.

Tables I, II and III which follow show the sources of funding for the instructional staff of the Program components, and the bilingual and mainstream courses in which Program students participate.

The Bushwick Bilingual Program has done much to coordinate instructional services to students, thereby reinforcing concepts learned in both ESL and content area classes. The articulation of instruction is apparent in the sections which follow.

TABLE I

INSTRUCTIONAL PERSONNEL: FUNDING SOURCES

Instructional Component	Funding Source(s)	Number of Personnel Teachers	Paras
ESL	Title I	4	3
Native Language (Spanish)	Title I & Tax Levy	1 2	1 0
Math	Tax Levy	2	1
Social Studies	Tax Levy	1	0
Science	Tax Levy	1	1
Administration & Supervision	Title VII	2	1

TABLE II

BILINGUAL CLASSES

Component	No. Classes	Aver. Class Register	% Spanish Instruction	Hrs./ Week	Staff Teachers	Paras	N.L. Appropriate Materials
Sp. Natives	9	25	100	4	3	1	yes
Math	5	33	80	4	2	1	yes
Science	3	23	50	4	1	1	yes
Social Studies	5	33	80	4	1	0	yes

TABLE III

PARTICIPATION IN NON-BILINGUAL CLASSES

Component	Student Participation	Periods/ Week	Selection Criteria
ESL	250	5	All students - req.
English	250	5	All students - req.
Typing	29	5	Good English skills
Bookkeeping	3	5	"
Clothing Construction	2	5	"
Art	19	5	"
Music		5	"
Physical Education	250	5	All students - req.

It is noteworthy that ESL instruction plays a central role in the instructional design, which stresses the relationship of the skills and goals acquired in each class, and the teaching of basic skills within content areas. Intensive ESL instruction is given for two periods a day on the elementary and intermediate levels, and one period a day on the advanced-transitional level. As the chart on participation in non-bilingual classes indicates, all Program students were taking one ESL class and one "substantial" English course every day. There is strong emphasis on keeping the student on track, and on helping those who are required to do so to pass the Regents Competency Tests in reading and writing. Career-related instruction is another very important component of the ESL Curriculum. In addition, ESL classes are used, for example, to teach the ability to read and understand mathematics problems, and to present vocabulary which will enhance the students' ability to function in school and the larger communities.

Careers are also a unifying theme throughout the Program curriculum. Vocational material is presented in science, math and social studies classes. In the Spanish for Native Speakers component, the series of multi-media kits entitled Careers for Bilinguals: Carreras Para Bilingues is used with great success, according to the Program Coordinator. An appreciation of the vocational advantages of the truly bilingual and bicultural student is taught through these materials, and is strongly emphasized throughout the Program. This is one aspect of the Program's stress on the contribution which the student's native culture and heritage can make, and shows how the study of native cultures is incorporated into the curriculum's content areas.

Within the specific content areas, the curriculum in use in bilingual classes is shown in Table IV. Additional information on these components may be found in Table II.

TABLE IV

CURRICULUM IN USE BY COMPONENT

Component	Curriculum
Spanish for Natives	Remediation, Literature, Native Culture
Math	Fundamentals, Algebra, Intermediate Algebra, Regents Preparation
Science	General Science (Biology, Physics, Earth Science), Regents Biology, Chemistry
Social Studies	Economics, World History, American History

Students are placed within the program, as was indicated in Section II, according to a variety of criteria: LAB and SLAB scores, a school modified version of the Criterion Referenced English Syntax Test (CREST), school-created math tests, student profile sheets, oral abilities assessment, and personal interview data. The program is designed to reflect the characteristics of a population which is quite diverse in terms of linguistic and

content area competence; it is appropriately individualized. Each student meets with a grade advisor at least twice a year, and to a large extent determines his or her own program. Changes can be made if the work seems too difficult or too easy. Program students carry heavier programs than those in the mainstream, since they are required to take ESL in addition to five major subjects.

Mainstreaming is recommended by the Program when courses have been successfully completed at grade level, and the student has mastered ESL Level VI. Partial mainstreaming is possible for a student demonstrating fairly good English skills and strong subject skills. In addition to the required mainstream English class, many students take at least one additional content area course in English; some, mainly eleventh grade students, take two or more such courses. Students are encouraged to participate to the limit of their ability, thus gaining career orientation and the tools necessary for academic success.

There are only a very few students who have completed ESL, but continue to receive content area instruction in their native language. A more common situation is one in which a fully mainstreamed student continues to identify with the Program and return for supportive services on an informal basis (since no funding is provided for this).

Parents must be involved in the decision to mainstream a student; parental consent is required, and, indeed, a student must be mainstreamed if his parents request it. According to the Coordinator, Program parents for the most part encourage mainstreaming with the school's recommendation. A small minority are resistant, preferring that their children remain in the Program, and continue to have their course work in Spanish.

The students, on the other hand, while they may be apprehensive, tend to succeed in the mainstream. This year, the Program Coordinator will introduce the valedictorian, a former Program student, at the graduation exercises. Such successful mainstreamed students have become a resource in answering questions which the families of students still within the Program may have.

More students are now taking the initiative in requesting mainstreaming because of the new requirements for graduation. At any rate, the process is not an abrupt one. The first mainstream program is planned in conjunction with the Program staff. After that, a student's teachers, counselors, and the Assistant Principals often refer to Program personnel, who tend to retain informal contacts with their former students.

Students exit the Program for a variety of reasons other than mainstreaming, which accounts for approximately 30% of exits. Another 30% leave because a parent has signed a consent form, although the School has not yet recommended mainstreaming. Other students transfer to a different school, either here or in another country. The Program Coordinator stated that for a substantial number of students who leave early in the Program, the school has no record of their whereabouts--they simply disappear. Some of these may be presumed to be truants, although the percentage of known truants was stated to be only 1.8 for grade 9, and 0 for grades 10 and 11. Graduation from the Program is not possible, since there are no twelfth grade students. In general, it seems that although record-keeping is quite satisfactory, a greater effort should be made to follow-up on student drop-outs.

V. NON-INSTRUCTIONAL COMPONENT

An overview of the non-instructional component of Bushwick's Bilingual/ Bicultural Program is given by Table V, below:

TABLE V

NON-INSTRUCTIONAL PERSONNEL: FUNDING SOURCES

Non-Instructional Component	Funding Source(s)	Personnel - Title	Personnel - Number
Curriculum Development *	Title VII	Resource Specialist	1
Supportive Services	Title I	Grade Advisor	1
Staff Development **	Title VII	Resource Specialist	1
Parental and Community Involvement	Title VII	Family Assistant	1
Administration & Supervision	Title VII	Coordinator	1
Other	Title VII	Secretary	1

* This is done under the supervision of the appropriate Assistant Principal, and also involves tax-levy teachers, and Title I ESL personnel.

** Note that there is only one Resource Specialist, who is responsible for both Staff Development and Curriculum Development.

Curriculum Development in the 1979-1980 school year was concentrated in the science area. Materials were developed for the Chemistry, General Science (Biology, Physics, and Earth Science components), and Regent's Biology classes, including a Teacher's Guide, lesson plans, and laboratory sheets for the Regent's Biology class. These materials are currently in classroom use, and were made available to the evaluator. (See Appendices A and B).

Although no materials from other Title VII programs were known to be in classroom use, the Program is aware of and makes use of other resource centers in support of curriculum development and other non-instructional activities. For example, contacts have been made with the New York City Board of Education Office of Educational Evaluation, and Bureau of Occupational and Vocational Guidance, as well as the Bilingual Vocational Service Center at New York University, the Title I Office, TESOL and NABE, the state and city Office of Bilingual Education, and the Office of Bilingual Education and Minority Language Affairs in Washington, D.C. Program personnel also expressed a desire to contribute to as well as make use of such centers. They have indeed contributed to the SABE newsletter, and hope to share more information in the future.

Supportive Services is a vital component of the Bilingual/Bicultural Program which could be even more effective in increasing the students' potential for success in school if additional staff were available. At present there is only one professional grade advisor assigned to this area. Career and college counseling for all 250 students in the Program

is grade advisor's main responsibility, which in Bushwick's career-oriented environment is an important one and one in which all staff participate to some extent. However, since there is no guidance counselor at present, and no funds available for a person to handle this specific function, this area too has become the responsibility of the grade advisor.

During the prior 1978-79 school year, when a full time guidance counselor was funded, approximately 250 students received counseling services. Regularly scheduled group sessions dealt with alternative ways of coping with everyday problems in adjustment to the social and school systems in this culture. Private sessions on a variety of behavioral and social topics were also scheduled to assist students with specific behavioral, personal or familial problems. Students were identified for these private sessions by referrals from school personnel or by self-referral. During 1979-80, the absence of a guidance counselor meant that these needs could not be properly addressed on a professional level. The limited time which the grade advisor could manage to devote to guidance activities, and the efforts of the excellent Family Assistant to provide informal counseling support, did not adequately fill this gap.

The Family Assistant, a paraprofessional staff member, monitored attendance as a major component of his responsibilities. On the basis of teacher referrals, parental requests, and his own observations, he made approximately 150 home visits and 200 telephone contacts during the school year in an attempt to resolve truancy, disciplinary, academic, and other

problems where family co-operation was deemed to be important. These visits often culminated in agency referrals or suggestions for tutoring in weak academic areas. Close contact with a number of supportive agencies was maintained, and the Family Assistant normally accompanied students who made their first contact with an outside agency. In addition, the Family Assistant helped to introduce students to the facilities of the Williamsburg Library Hispanic Information Center, was instrumental in obtaining a computer terminal which allowed students to access the SUNY data bank for career-related information, and worked closely with ASPIRA.

Either by self-referral, or by being referred by teachers or other staff members, students were able to avail themselves of Bushwick's Peer Tutoring Program, or "Homework Helpers." This program provided another source of help for students with specific academic problems.

Staff Development activities in the 1979-1980 school year included courses taken at New York University, Long Island University and Brooklyn College. This formal study involved 5 teachers and covers a wide range of subject matter: International Understanding through Films, Educational Tests and Measurement, Language Acquisition and Development, Psycholinguistics, Planned Intervention, and Sources of Information. In addition, staff members participated in a Bilingual Education Workshop, in the Title VII Management Conference in Washington, D.C., and in the NABE Conference in Los Angeles. All staff met bi-monthly for informal discussion of special topics including initial goal setting and a mid-year goal update. Para-professionals also participated in a "career ladder" program about which specific information was not available.

Staff characteristics in regard to education and experience are given in table VI, below.

TABLE VI

TITLE VII STAFF CHARACTERISTICS

Position	Education	Experience - Monolingual	Experience - Bilingual
Coordinator	M.A., English Certification	Director mini-school, head Reach Out, Asst. to English Dept. Chairman, head of afternoon session	ESL, at Bushwick, Church, U.S. Army
Resource Specialist	B.S., Biology M.S., Science Education - Secondary Certification	Secondary School Science	Bilingual Science Teacher Bilingual Resource Teacher (Elementary and Secondary) High School Equivalency for Adults
Family Assistant	Enrolled at John Jay College, N.Y.C.		December 1977 on as Family Assistant
Educational Assistant	Enrolled at Kingsboro Community College, N.Y.C. 38 Credits Completed		Educational Assistance since 1976
Educational Assistant	Enrolled at York College Majoring in Elementary Education. All course work but for one course is completed.		Family Assistant and Educational Assistant since 1978

Parental and Community Involvement. The Bilingual/Bicultural Program at Bushwick has continued to reach out to the traditionally uninvolved parent community, with limited, but encouraging success. The goal is to increase the parents' ability to help their children with school-related activities, and to understand their own importance and strengths in contributing to the Program. One of the strongest components of this effort is the home visiting program conducted by the Family Assistant, discussed under Supportive Services, above.

This effort to bring the school to the family has been able, to some extent, to neutralize some of the factors which adversely affect parent participation: irregular work schedules, non-traditional family structure, home responsibilities, lack of money for travel and clothing, and the dispersion of families by fire in the area combined with fear of travel through the neighborhood. Success is measured in part by the significant number of parents and other family members who contacted the Family Assistant for help.

This year, the strategy of pooling resources with the larger school community has had a positive effect, and the Program's Teacher/Student Advisory Committee has become part of the general school PTA. Twelve parents, three students, and all staff members participate to some extent. In addition, 30 parents participated in a high-school equivalency class given at Bushwick. Teaching hours for this class totaled 150 hours per student.

Other activities in which parents participated included Puerto Rico Discovery Week, Dominican Republic Day, Friendship Day, Pan American

Week (at the Board of Education) and the Halloween and Christmas parties. Parents went along on several Program trips, and there was also interest in outside speakers who came to Bushwick to discuss the U.S. Census and drug abuse issues. Information about all of these activies was disseminated in various ways: through the school's weekly literary magazine, "The Bridge," which appears in English or Spanish according to which class prepares it; through a Spanish language newsletter sent to parents every month; and through information given to students by the teaching staff concerning activities in which parents could participate.

Affective Domain. Positive student attitudes within the Program were reflected in several ways. Attendance was almost always above 80%, or even 85%, far above the school average of about 67%. (One class had 100% attendance for five consecutive days). Participation in extra-curricular activities within the Program and outside of it, e.g. sports, was almost universal. Students were very well-behaved on Program trips, and in general maintained a highly respectful attitude; there was very little vandalism, and only 1 or 2 suspensions this year. The drop-out rate was greatest at the ninth-grade level, but still below the rate for the general school population. Although students were main-streamed before their senior year, it was estimated that about 75% attend college.

VI. FINDINGS

Assessment Procedures and Findings

The following section presents the assessment instruments and procedures, and the results of the testing.

Assessment Procedures and Instruments

Students were assessed in English Language development, growth in their mastery of their native language, mathematics, social studies and science. The following are the areas assessed and the instruments used:

English as a Second Language	--	Criterion Referenced English Syntax Test (CREST), Levels I, II, III
Mathematics Performance	--	Teacher - Made Tests
Science Performance	--	Teacher - Made Tests
Social Studies Performance	--	Teacher - Made Tests
Native Language Arts Performance	--	Teacher - Made Tests
Attendance	--	School and Program Records

a) The Criterion Referenced English Syntax Text (CREST) provides information on the number of objectives attempted and mastered, the percentage of objectives mastered versus those attempted, and the number of objectives mastered per month of treatment. Information is also provided on student performance on the various test levels.

Mastery rates are reported by semester for two units of instruction times: by day and by month. Instruction (treatment) time is defined as the period of classroom instruction that occurred between pre- and post-testing which is conducted each semester. The maximum treatment time, as defined, is 63 days or 3.2 months (assuming that 20 days comprise one month, on the average).

b) The results of criterion referenced tests in mathematics, social studies, science and native language arts are reported in terms of the number and percent of students achieving the criterion levels set for the participants (60% passing). The results in the areas of mathematics, science and social studies are presented for students in bilingual and mainstream classes (that is, Bilingual Program students taking one or more of their content area classes in English). The results for native language arts/Spanish classes are presented for students in remedial Title I classes, and non-remedial students in Spanish for Native Speakers classes. These distinctions reflect differences within the target population and concomitant responses in the instructional program.

c) Information is provided on the attendance rate of students participating in the Bilingual Program, compared with that of the total school population.

The following pages present student achievement in tabular form.

TABLE VII

English as a Second Language

Fall

Results of the Criterion Referenced English Syntax Test (CREST)
Reporting the Number of Objectives Mastered, Percent Mastered,
and Objectives Mastered Per Day and Per Month.

Grade	# of Students	Average # of Objectives Attempted	Average # of Objectives Mastered	% Mastered/ Attempted	Average Days of Treatment*	Average Months of Treatment*	Objectives Mastered Per Day	Objectives Mastered Per Month
9	46	15.1	6.3	42%	50.5	2.6	.13	2.6
10	45	12.2	6.7	55%	56.9	2.9	.12	2.3
11	37	8.2	4.8	58%	57.5	2.9	.08	1.7
Totals	128	12.1	6.0	50%	54.8	2.8	.11	2.2

* Instructional time between Pre - and Post - Testing.

CREST testing results regardless of test level in Fall revealed that 50% of the total objectives attempted were mastered by students for all grade levels combined (6.0 mastered of 12.1 objectives attempted). Excellent mastery rates in terms of average objectives mastered per month of instruction were observed at all grade levels. The range was from 1.7 mastered objectives in grade 11 to 2.6 objectives mastered among 9th grade students.

TABLE VIII

English as a Second Language

Fall

Student Performance on the
Criterion Referenced English Syntax Test (CREST)
A Breakdown by Test Level and Grade.

		LEVEL I			LEVEL II			LEVEL III		
Grade	# of Students	Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered
9	46	528	226	43%	158	62	39%	8	3	38%
10	45	148	86	58%	324	171	53%	77	43	56%
11	37	41	33	80%	129	83	64%	133	61	46%
Totals	128	717	345	48%	611	316	52%	218	107	49%

The grade by test level crosstabulation for Fall CREST results showed that students at the lower grade level (Grade 9) were functioning primarily at the lower test levels and those at the upper grade levels functioned basically at the upper test levels. Tenth grade students performed at the intermediate test level primarily. The total group showed approximately the same rate of mastery at each test level. Within grade levels, 9th grade experienced the most difficulty in mastering the language objectives while the 11th grade students were highly successful at Levels I and II. Tenth graders mastered approximately one-half of the objectives they attempted.

TABLE IX

English as a Second Language

Spring

Results of the Criterion Referenced English Syntax Test (CREST)
Reporting the Number of Objectives Mastered, Percent Mastered,
and Objectives Mastered Per Day and Per Month.

Grade	# of Students	Average # of Objectives Attempted	Average # of Objectives Mastered	% Mastered/ Attempted	Average Days of Treatment*	Average Months of Treatment*	Objectives Mastered Per Day	Objectives Mastered Per Month
9	27	11.0	6.0	55%	55.1	2.8	.11	2.2
10	31	6.1	3.8	62%	58.5	3.0	.07	1.4
11	31	6.4	3.9	62%	54.1	2.7	.07	1.4
Totals	89	7.7	4.5	59%	56.0	2.8	.08	1.6

* Instructional time between Pre - and Post - Testing.

On the average, Spring CREST results when compared to Fall revealed that while fewer objectives were attempted, the percent mastered was uniformly higher, ranging from 55% in grade 9 to 62% in grades 10 and 11. The number of objectives mastered per month of instruction was consistently greater than 1.0, ranging from 1.4 in grades 10 and 11 to 2.2 in grade 9.

TABLE X

English as a Second Language

Spring

Student Performance on the Criterion Referenced English Syntax Test (CREST) A Breakdown by Test Level and Grade.

Grade	# of Students	LEVEL I			LEVEL II			LEVEL III		
		Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered
9	27	112	63	56%	163	88	54%	24	12	50%
10	31	37	20	54%	50	39	78%	105	60	57%
11	31	20	16	80%	47	30	64%	130	76	58%
Totals	89	169	99	59%	260	157	60%	259	148	57%

As seen in Table X, 9th and 10th grade students in the Spring were more successful in mastering the objectives they attempted as compared to Fall results on the CREST; 11th graders mastered objectives at a level virtually identical to Fall results. Spring results showed 9th graders to have shifted from primarily functioning at Level I to Level II when compared to Fall and 10th and 11th graders to have moved up to Level III from Level II in modal language functioning.

TABLE XI

Mathematics Performance

Number and Percent of Students Passing

Teacher-Made Examinations in Mathematics

	FALL 1979			SPRING 1980		
Grade	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	57	25	44%	57	24	42%
10	53	32	60%	56	34	61%
11	27	17	63%	33	18	55%

In the Fall term, the percentage of non-remedial Program students passing teacher-made examinations in mathematics ranged from 44% in grade 9 to 63% in grade 11. In Spring, the percent mastering the curriculum ranged from 42% in grade 9 to 61% in grade 10. Overall, the stated evaluation objective for mathematics was met and substantially surpassed in grades 10 and 11 (Fall) and in grade 10 (Spring), while students in other grades failed to reach the criterion level (60% passing).

TABLE XII

Science Performance

Number and Percent of Students Passing

Teacher-Made Examinations in Science

	FALL 1979			SPRING 1980		
Grade	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	34	11	32%	17	13	77%
10	36	26	72%	25	24	96%
11	23	15	65%	19	19	100%

In the Fall term, the percentage of non-remedial Program students passing teacher-made examinations in science ranged from 32% in grade 9 to 72% in grade 10. In Spring, the percent mastering the curriculum ranged from 77% in grade 9 to 100% in grade 11. Overall, the stated evaluation objective for science was met and substantially surpassed in grade 9 (Spring) 10 and 11. Students in grade 9 failed to reach the criterion level of 60% passing in Fall.

TABLE XIII

Social Studies Performance

Number and Percent of Students Passing

Teacher-Made Examinations in Social Studies

	FALL 1979			SPRING 1980		
Grade	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	22	13	59%	48	32	67%
10	37	33	89%	46	40	87%
11	21	20	95%	43	39	91%

In the Fall term, the percentage of non-remedial program students passing teacher-made examinations in social studies ranged from 59% in grade 9 to 95% in grade 11. In Spring, the percent mastering the curriculum ranged from 67% in grade 9 to 91% in grade 11. Overall, the stated evaluation objective for social studies was met and substantially surpassed in grades 9(Spring), 10, and 11. Students in grade 9 failed to reach the criterion level of 60% passing in Fall. However, the level was not met by only 1 percentage point.

TABLE XIV

Content Area Performance

Number and Percent of Students Passing

Teacher-Made Examinations in Mathematics,

Science and Social Studies

(Students in Mainstream Classes)

	FALL 1979			SPRING 1980		
Grade	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
			Mathematics			
9	------NO DATA----------			--------NO DATA----------		
10	3	2	67%	5	4	80%
11	12	9	75%	12	8	67%
			Science			
9	------NO DATA----------			--------NO DATA----------		
11	------NO DATA----------			2	1	50%
12	1	0	0%	--------NO DATA----------		
			Social Studies			
9	------NO DATA----------			--------NO DATA----------		
10	------NO DATA----------			1	1	100%
11	------NO DATA----------			1	1	100%

TABLE XIV
(Continued)

Bilingual program students who had been partially mainstreamed participated in non-bilingual program classes in mathematics, science and social studies. The data are limited and little can be surmised from the information reported. It represents an effort to follow-up mainstreamed program students to document their level of success once transition has been effected. More confidence can be placed on the mathematics information than science and social studies due to the larger number of students reported in that area.

In the Fall term, the percentage of mainstreamed program students passing teacher-made examinations in mathematics was 67% in grade 10 and 15% in grade 11. In Spring, the percent mastering the curriculum was 67% in grade 11 and 80% in grade 10. Overall, the stated evaluation objective for mathematics was met and substantially surpassed in both grades.

In the Fall term, the percentage of mainstreamed students passing teacher-made examinations in science was 0% in grade 11. In Spring, the percentage mastering the curriculum was 50% in grade 10. Overall, the stated evaluation objective for science was not met. However, the samples on which the data are based are too small to be reliable.

In the Fall term, the percentage of mainstreamed students passing teacher-made examinations in social studies was 100% in grades 10 and 11 in the Spring. Overall, the stated evaluation objective for social studies was met and substantially surpassed, although the sample sizes are very small.

TABLE XV

Native Language Arts Performance

Number and Percent of Students Passing

Teacher-Made Examinations in Native Language Arts

(Remedial Title I Students)

	FALL 1979			SPRING 1980		
Grade	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	34	17	50%	40	17	43%
10	20	8	60%	18	11	61%
11	5	3	60%	6	4	67%

In the Fall term, the percentage of Remedial Title I students passing teacher-made examinations in native language arts ranged from 50% in grade 9 to 60% in grades 10 and 11. In Spring, the percent mastering the curriculum ranged from 43% in grade 9 to 67% in grade 11. Overall, the stated evaluation objective for native language arts was met and substantially surpassed in grades 10 and 11. Students in grade 9 failed to reach the criterion level (60% passing).

TABLE XVI

Native Language Arts Performance

Number and Percent of Students Passing

Teacher-Made Examinations in Native Language Arts

(Non-Remedial Students)

	FALL 1979			SPRING 1980		
Grade	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	27	13	48%	20	12	60%
10	40	31	78%	41	28	68%
11	37	22	50%	38	26	68%

In the Fall term, the percentage of native language speakers passing teacher-made examinations in native language arts ranged from 48% in grade 9 to 78% in grade 10. In Spring, the percent mastering the curriculum ranged from 60% in grade 9 to 68% in grades 10 and 11. Overall, the stated evaluation objective for native language arts was met and surpassed in grades 9, 10 and 11 (Spring). Students in grade 9 and 11 (Fall) failed to reach the criterion level (60% passing).

TABLE XVII

Attendance Rates

Number and Percent of Students Surpassing the General School Attendance Rate, Reporting the Program Attendance Rate and Standard Deviation

Grade	No. of Students	Average Attendance	Standard Deviation	Number Surpassing Rate	% Exceeding School Rate
9	62	82.5%	17.0	57	48.3%
10	65	87.3%	18.1	64	66.7%
11	46	91.2%	9.2	46	69.7%

Average attendance rates ranged from 83% in grade 9 to 91% among 11th grade students. The percentage of students that surpassed the school-wide attendance rate ranged from 48% in grade 9 to 70% in grade 12. The data demonstrate high attendance levels far in excess of the stated evaluation objective.

Summary of Findings

The following sections present a discussion and summary of the information which appeared in the preceding tables.

English language achievement. Bushwick bilingual students showed excellent rates of mastery on the objectives of the CREST, at all grade levels. In the fall term, students in grades 9 - 11 mastered an average of 2.2 objectives per month of instruction, and mastered about 50% of the objectives they attempted. In the spring, students mastered an average of 1.6 objectives per month of treatment, generally attempting and mastering more objectives on levels I and II of the CREST than on level III. Students in the spring term mastered an average of 60% of the objectives they attempted, exceeding the fall mastery rate. The Bushwick students more than surpassed the general expectation of the ESL curriculum, which was for one objective mastered for four weeks of instruction.

Performance in the content areas of mathematics, science, social studies and native language arts is reported by the type of student and instructional program.

Content area performance, students in bilingual classes. On the whole, Bushwick bilingual students met the criterion level for success in the content areas (that 60% or more of the students enrolled in content area classes would pass them), although with some exceptions. Students enrolled in these classes achieved the greatest success in science and social studies classes, where only fall term 9th graders failed to meet the criterion, while performance in mathematics appeared to be more problematical (only about half of the groups reported achieved the 60% passing rate). It would appear that the 9th graders experience the most difficulties in content area classes,

suggesting that the program's tutors focus on these students and their needs in their first year of high school.

Bilingual students enrolled in mainstream classes. While relatively few students were reported as taking content area classes in which English was the sole medium of instruction, an evaluation of their progress is essential to ensure their continued success and to provide feedback to program personnel on the placement process. In the area of mathematics, all students were reported to have achieved rates of passing well above 60%, indicating success in this area. While a total of five students were registered in science and social studies, their numbers are too small to be subject to any meaningful generalizations. The results are simply reported as follows: of the three students registered in science classes, one passed; both students taking mainstream social studies classes passed them.

Native language arts/Spanish for native speakers. Student outcomes are reported by the type of student and instructional program--remedial Title I classes for students requiring basic skills in Spanish, and students in classes for native speakers of Spanish with well-developed skills in the language.

Students in the remedial Title I classes met and surpassed the criterion level in the 10th and 11th grades, while 9th graders failed to reach the 60% passing rate. Non-remedial students as a whole were successful in Spanish classes, although 9th and 11th graders in the fall term achieved rates of passing which were below the criterion level.

Attendance. Program students in all grades achieved rates of attendance which consistently and overwhelmingly exceeded the schoolwide rate.

VII. CONCLUSIONS AND RECOMMENDATIONS

The Bushwick Bilingual Program has developed an instructional program which appears to be an effective one, and which is sensitively geared to meet the needs of subgroups within the target population--students in need of basic skills development, students with well-developed skills in their native language, and students whose cognitive and English language skills are sufficiently developed to allow them to participate at least to some extent in instruction in English. The efforts of the program staff to offer support to the students through the tutoring program and increased parental involvement are to be commended, and contribute to the high rates of attendance of program students at all grade levels. While commending its overall quality, the following recommendations are made to strengthen the program:

a) The findings indicate that, in general, it is the 9th graders who have the most difficulty in content area classes. Given the peer tutoring program, it is recommended that tutoring and other support services focus on the special needs of these students to minimize their academic difficulties.

b) The need for a bilingual guidance counselor is great, both to maximize the effectiveness of the present staff and to offer increased support services to program students. It is recommended that such a position be funded, if possible.

c) In addition to bi-monthly meetings and college courses, it is recommended that the in-service training efforts be intensified and formalized, disseminating staff skills in the form of workshops, for example. This might not require additional resources, but rather it would tap knowledge and expertise already existing in the program.

d) Given the program's commitment to continued support of its students, including follow-up of students in mainstream classes, it is recommended that an attempt be made to improve the process of following up on students who drop out, particularly those identified as "not found." The better identification of such students and their problems may assist in the prevention of similar drop-outs in the future.

e) While recognizing that physical space in many high schools is limited, it is hoped that more space will be made available to the Bilingual Program for the more effective delivery of tutoring and counseling services.

f) Finally, the strong effort to involve parents in the Program should be continued and extended further into the community if possible.

VIII. APPENDIX

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